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Peterson et al.

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[45] **Date of Patent: Dec. 21, 1999**

[54] **METHOD OF HANGING A CLAY FLOWERPOT**

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[51] **Int. Cl.**[6] **A47K 1/08**

[52] **U.S. Cl.** ..... **248/312.1**; 47/67 R

[58] **Field of Search** ..... 248/312.1, 311.2, 248/310; 47/39, 39 C, 67 R; 211/71, 88

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Assistant Examiner—Stephen S. Wentsler
Attorney, Agent, or Firm—Vincent L. Carney

[57] **ABSTRACT**

To hang a clay flowerpot and saucer to a fence post, porch or the like, an elongated base of a hanger is mounted to a surface, a saucer is mounted to the hanger in a saucer holder in an upright position and a flowerpot is mounted to the same hanger in a flowerpot holder above the saucer and the saucer holder is positioned, after which the saucer holder is fastened in place. The saucer holder is removably fastenable to said base in a horizontal slot so that it can be moved upwardly and downwardly. The holder for the saucer includes means for gripping the edge of a saucer between a downwardly extending tongue and a slanting surface.

1 Claim, 4 Drawing Sheets

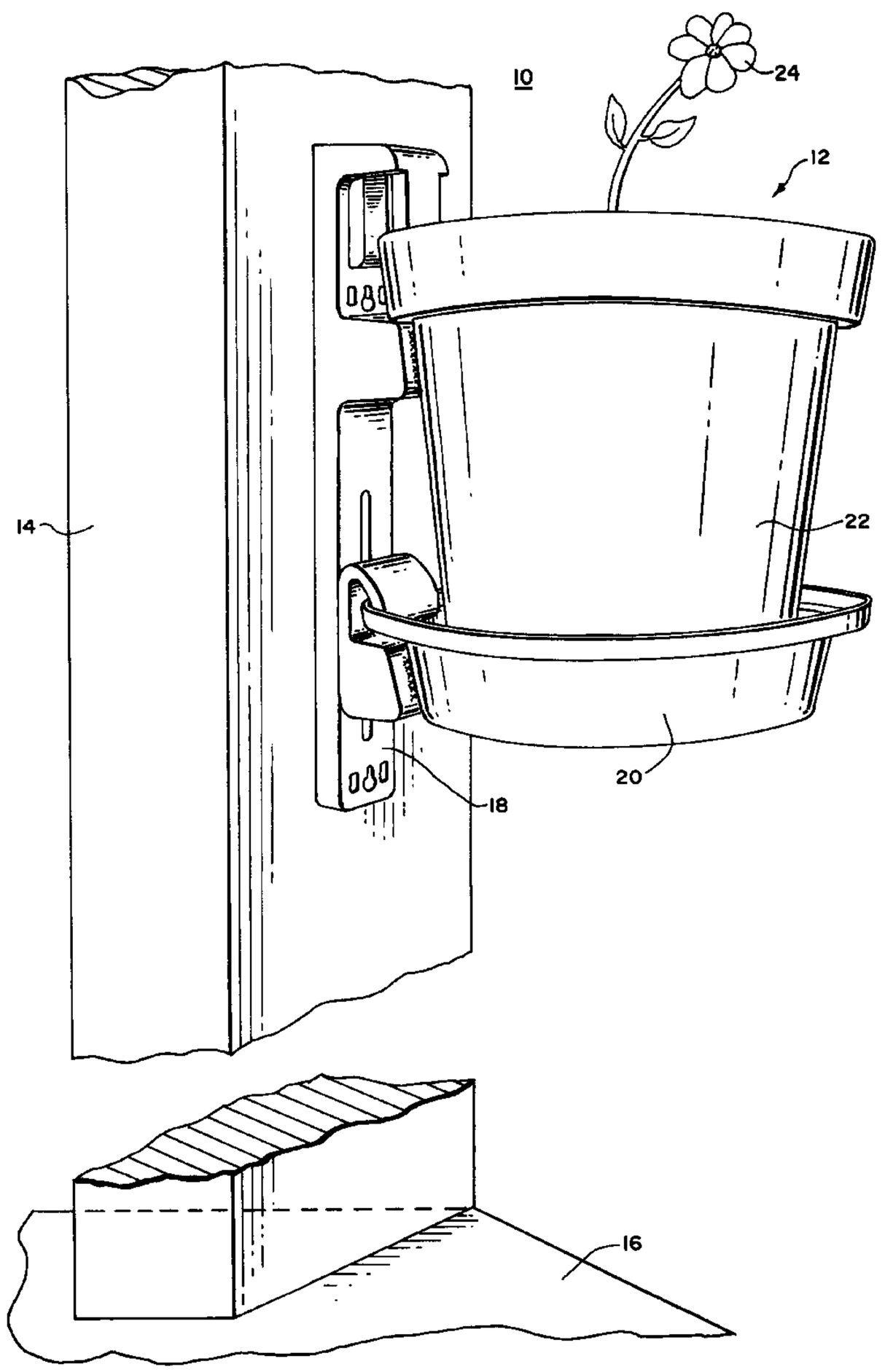


FIG. 1

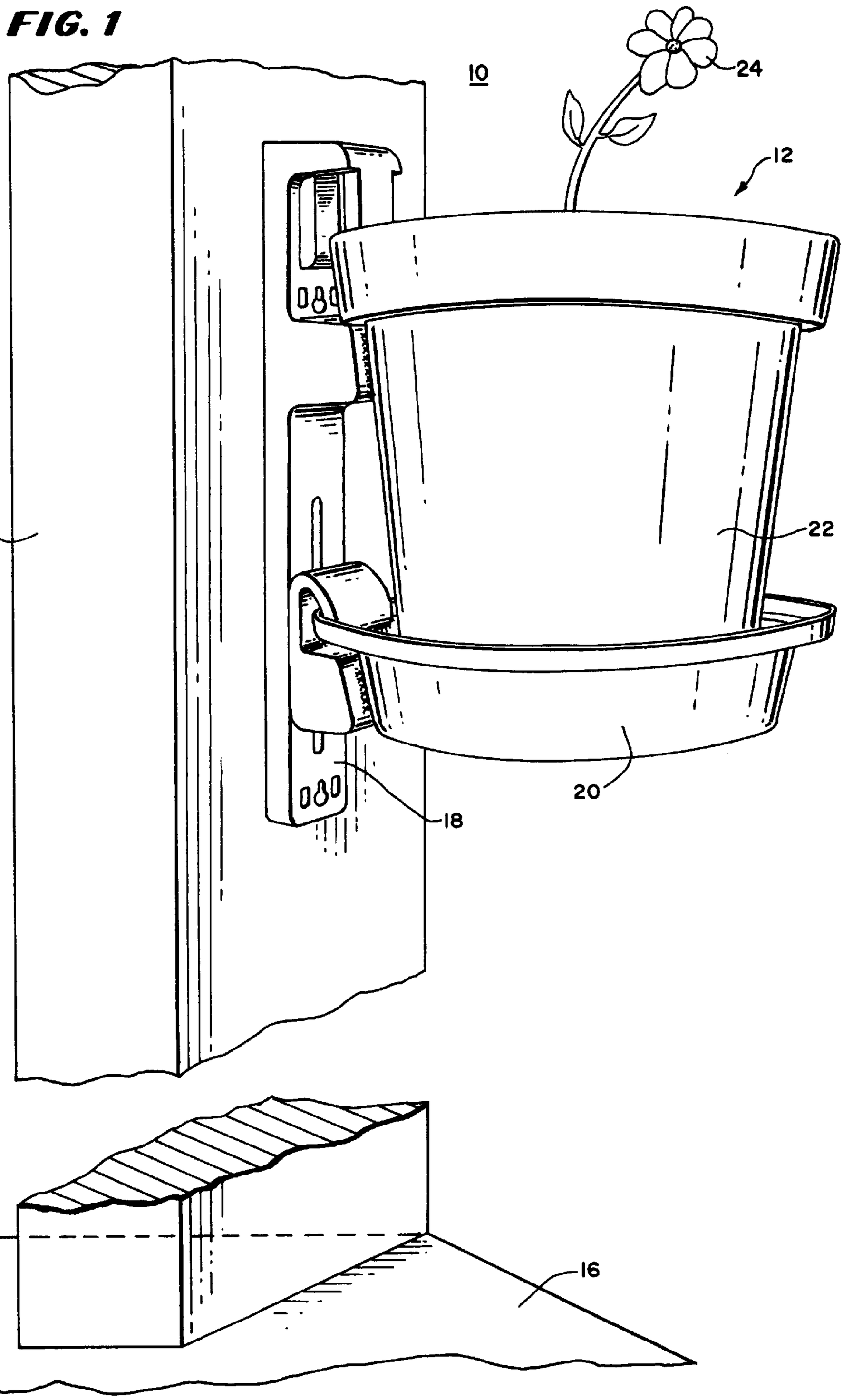
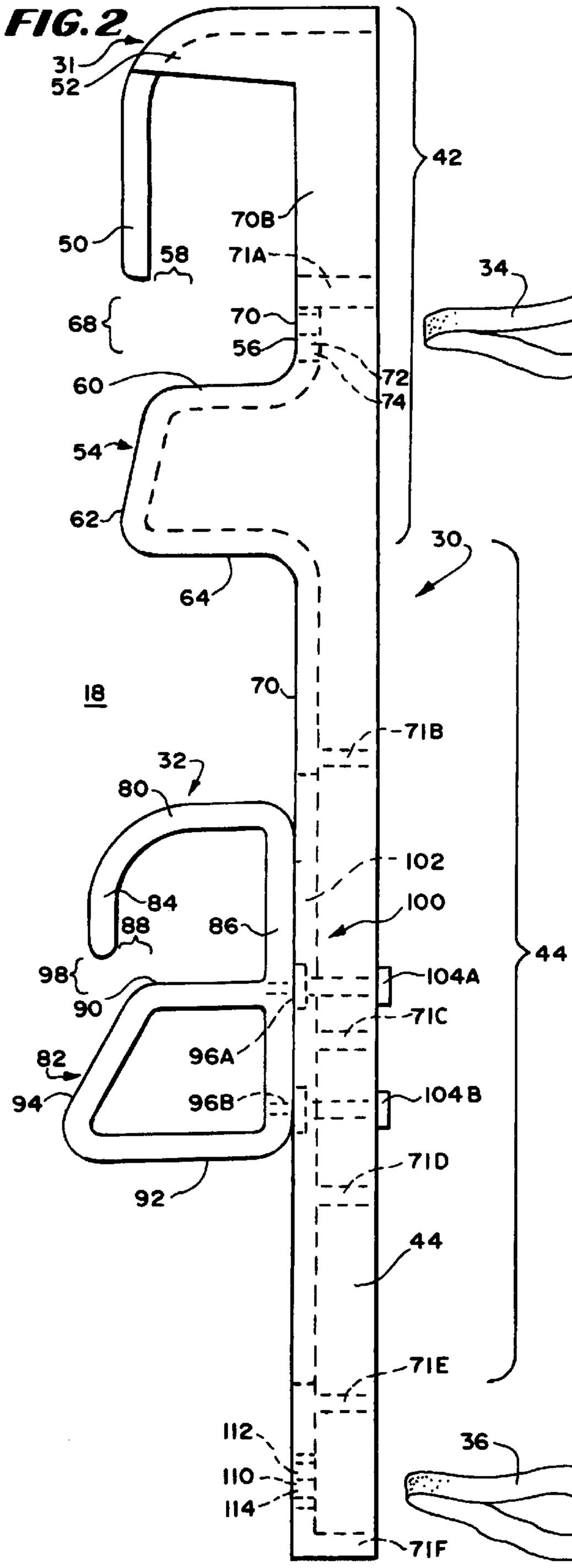


FIG. 2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70B
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71C
82
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104B
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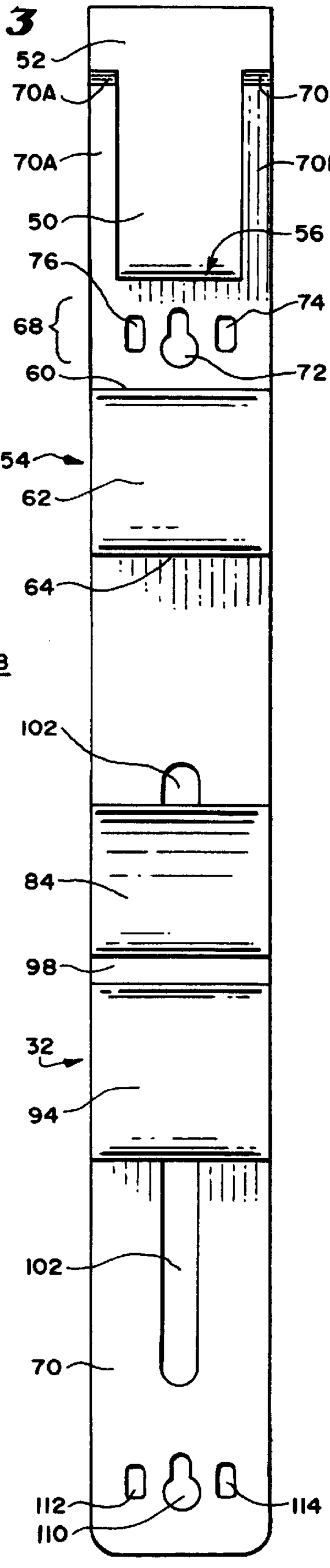
FIG. 3


52
70A
70B
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70B
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FIG. 4

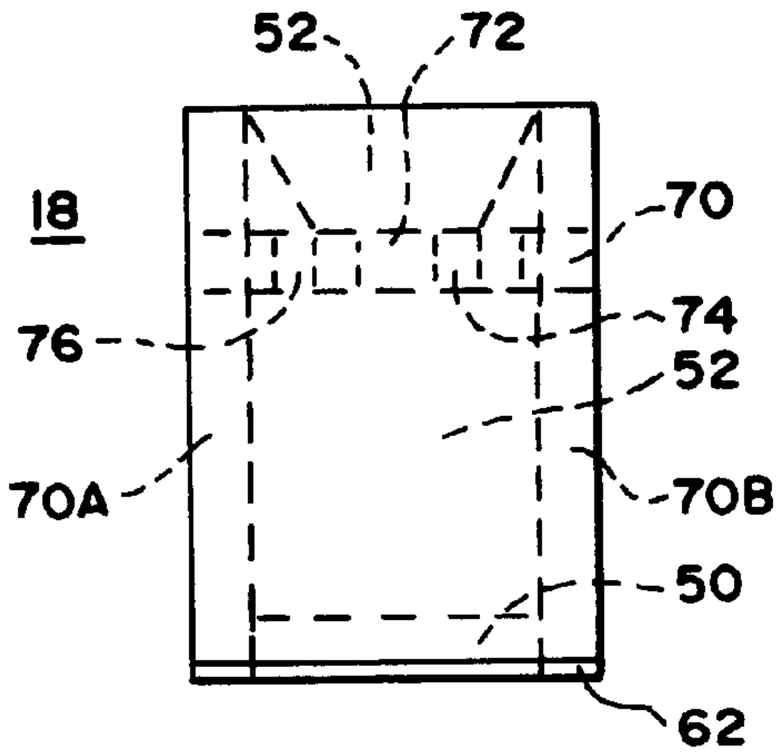


FIG. 5

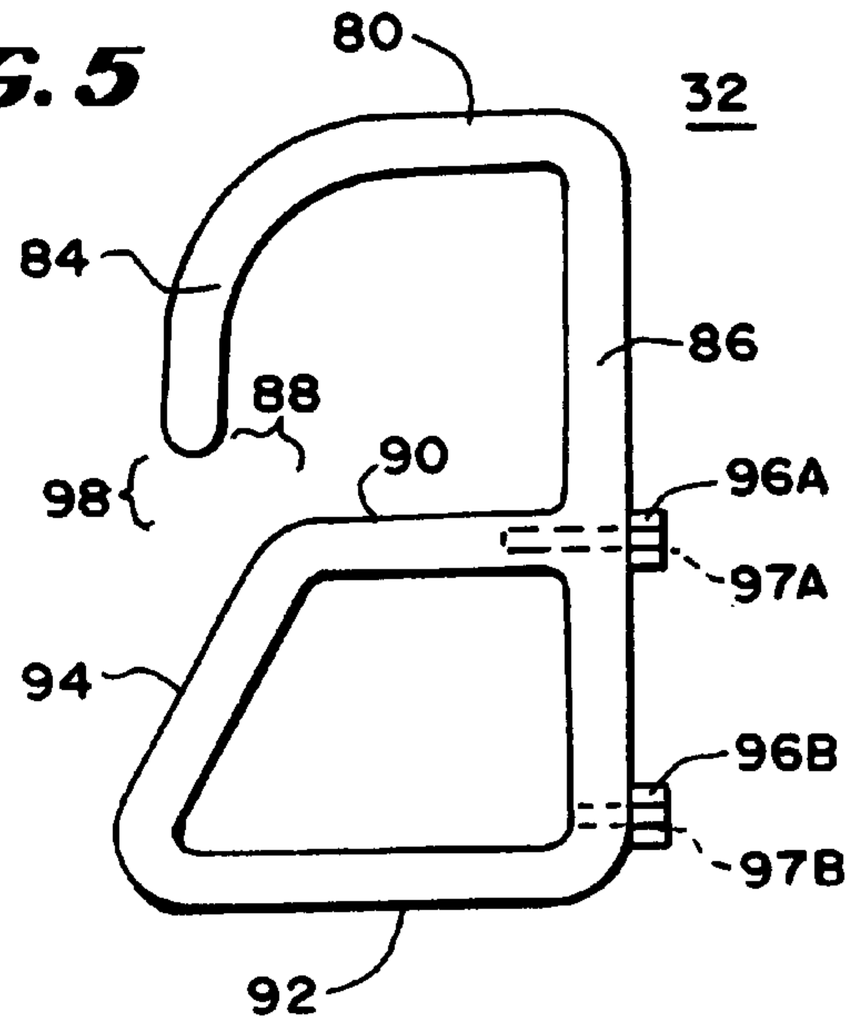


FIG. 6

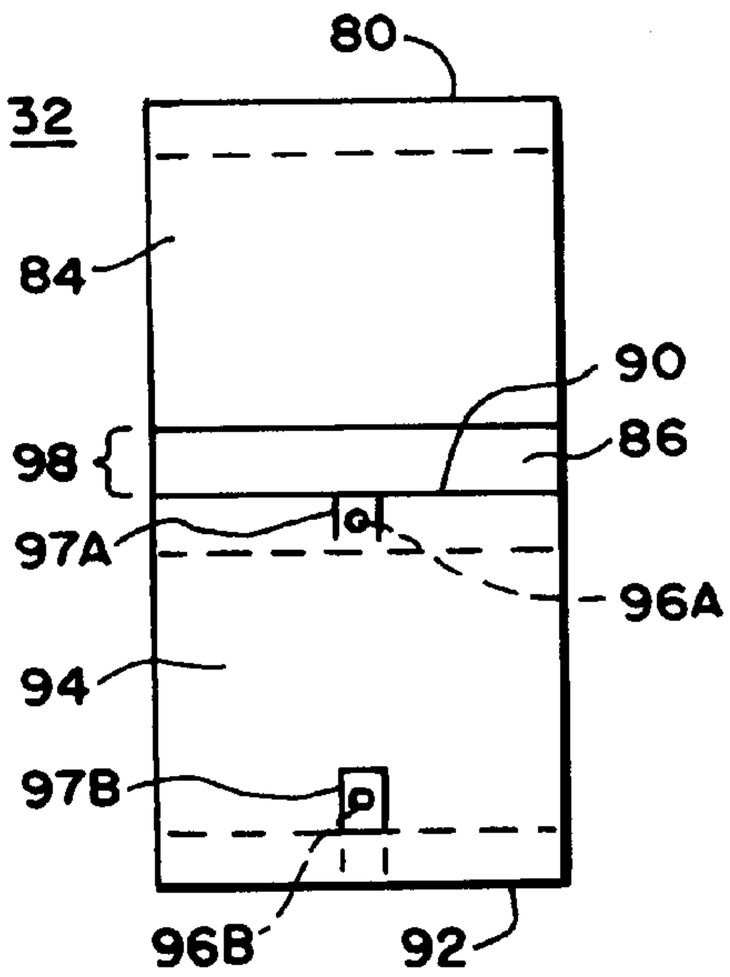


FIG. 7

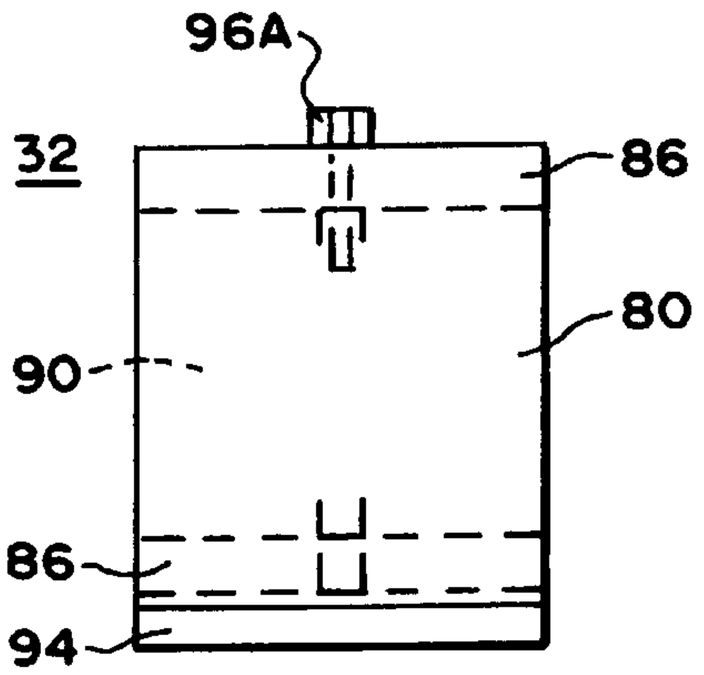


FIG. 8

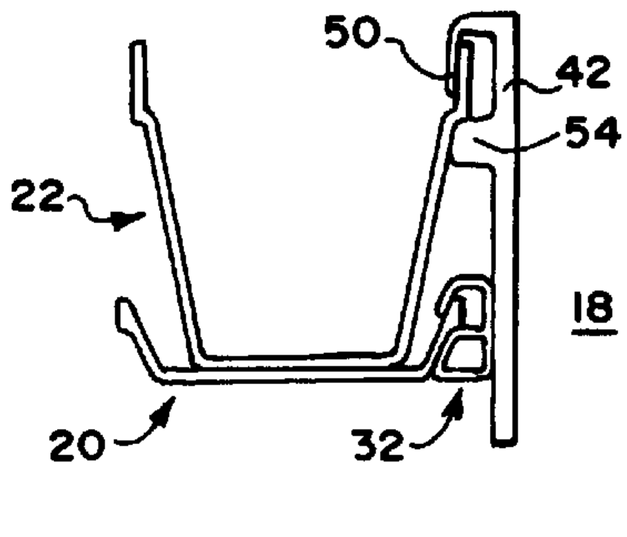


FIG. 9

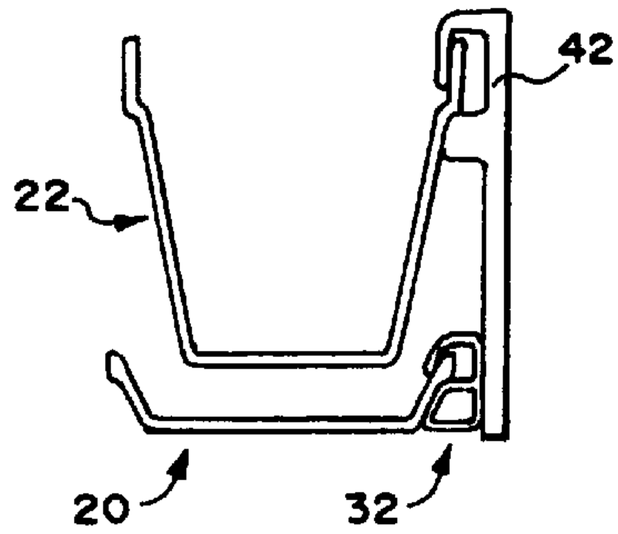


FIG. 10

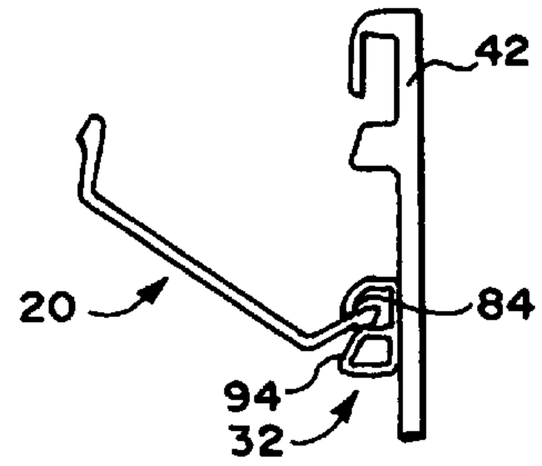


FIG. 11

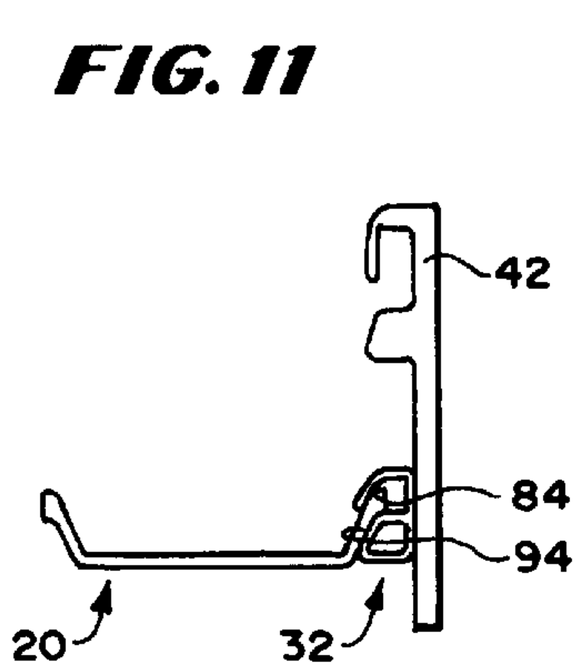


FIG. 12

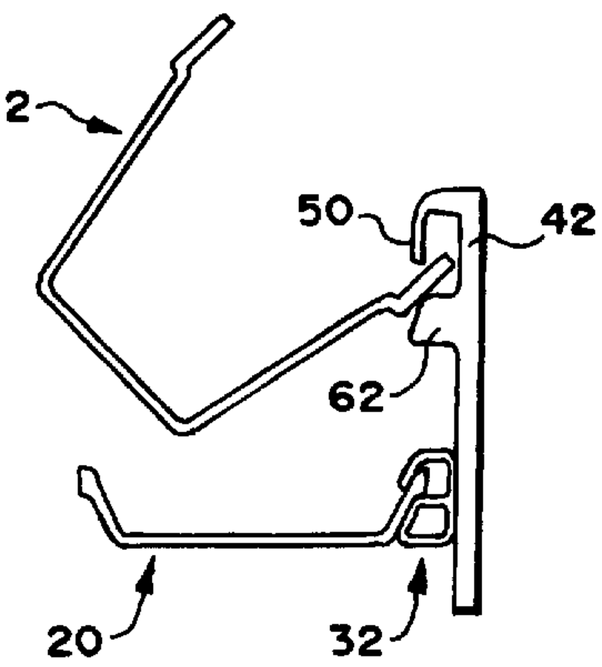


FIG. 13

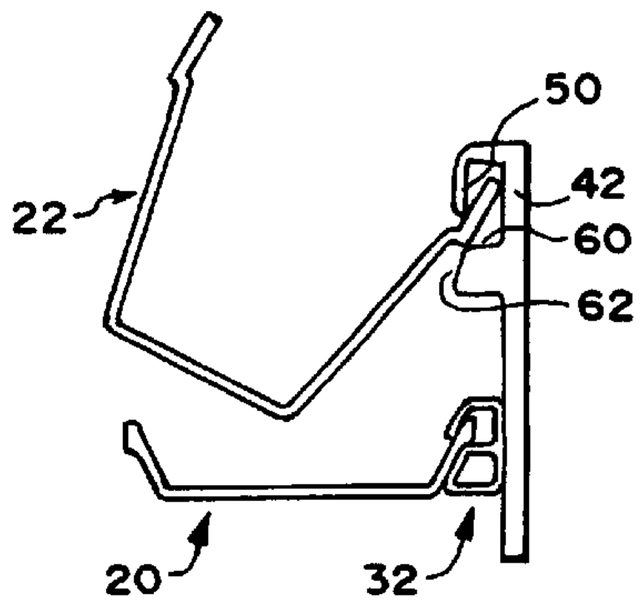


FIG. 14

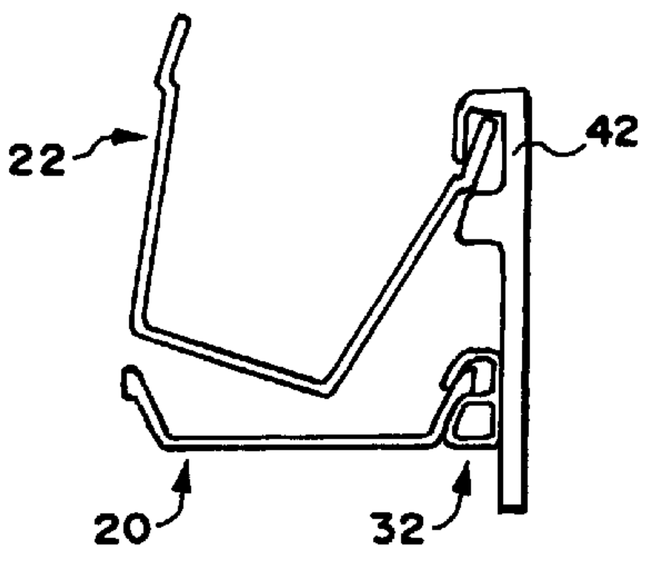


FIG. 15

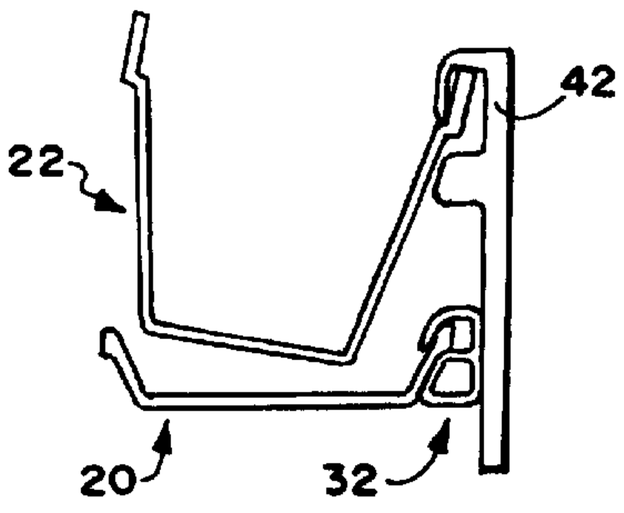
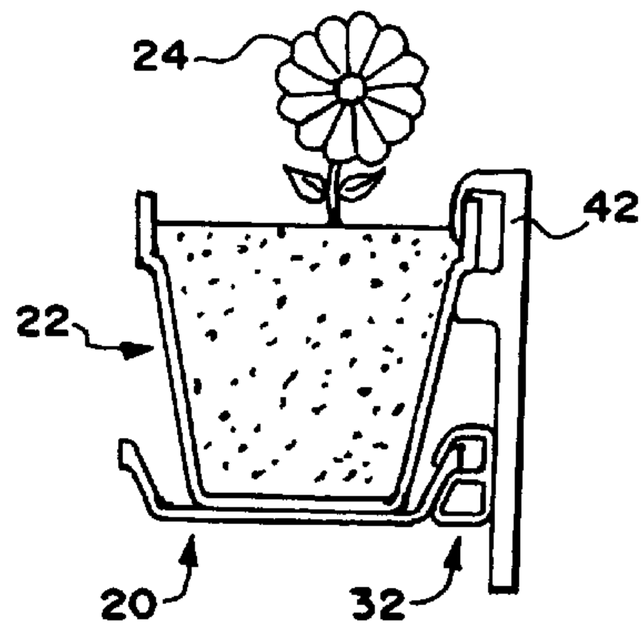


FIG. 16



METHOD OF HANGING A CLAY FLOWERPOT

BACKGROUND OF THE INVENTION

This invention relates to hangers for flowerpots or other containers intended to hold plants.

Under some circumstances, flowers and other plants are grown in pots that are attached to preexisting structures such as fences, porch walls or the like by fasteners such as belts passing around fence posts, screws, nails or the like. One class of hanger for such flowerpots includes an elongated base having apertures through it and a clip extending from the front side. The clip is adapted to receive and support the flowerpot and the apertures on the back receive fasteners for holding the hanger to the preexisting structures.

To support the flowerpot in this class of hanger, the clip includes two outwardly extending substantially horizontal members extending from the base and positioned vertically one under the other with the top member having a vertically oriented downwardly-extending projection or tongue spaced with respect to the bottom horizontal member so that: (1) the inner surface of the projection facing the base rests against the upper inside edge of a flowerpot; and (2) the bottom horizontal member receives a shoulder of the flowerpot rim on its upper surface and receives the inwardly slanting outer walls on its distal surface. The distal end of the bottom horizontal member has its surface at an angle such as that customary for clay flowerpots. With this arrangement, the two parallel horizontally-extending members together support the flowerpot.

In a prior art hanger of this class, the base of the hanger is relatively short vertically and does not include any support for a saucer so the bottom of the flowerpot is fully exposed.

The prior art flowerpot hangers of this class have several disadvantages, such as for example: (1) the flowerpots held by it drain quickly and thus need water more often; (2) the drainage from the flowerpot may drip onto a porch surface or the like; (3) water cannot be placed in a saucer and permitted to move to the plant by capillary action; and (4) they do not have the added decorative feature of a saucer under the flowerpot.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the invention to provide a novel hanger for flowerpots or other containers.

It is a still further object of the invention to provide a novel method of hanging flower or plant containers.

It is a still further object of the invention to provide a novel method of making hangers for flowerpots.

It is a still further object of the invention to provide a convenient technique for mounting flowerpots having both a pot and a saucer in combination.

In accordance with the above and further objects of the invention, a hanger for flowerpots or other containers intended to hold plants includes an elongated base, a holder for removably fastening the flowerpot to the base spaced a substantial distance from the bottom of the flowerpot and from the bottom of the base of the hanger and a holder for removably fastening a saucer spaced an adjustable distance from the flowerpot holder to permit ready mounting of both a flowerpot and a saucer vertically one under the other.

In the preferred embodiment, the distance between the top holder for the flowerpot and the bottom holder for the saucer is adjustable because the bottom holder is mounted within a vertical slot so that it can be fastened at adjustable distances.

However, other means can be used for such adjustability and either the top holder or the bottom holder or both may be movable on the base of the hanger.

In use, a flowerpot is hung in the upper holder and a saucer is hung in the bottom holder. The saucer is then slid upwardly and a mark is made when the bottom of the saucer is adjacent to the bottom of the flowerpot. The saucer is then lowered and the flowerpot and saucer are removed from the holders. The bottom holder is then fastened in place where indicated by the mark, the saucer is again hung onto the saucer holder and the flowerpot is then again hung on the flowerpot holder.

In making the hanger, the base and upper pot holder of the hanger are formed of plastic by injection molding. The die cavity is elongated and generally rectangular and includes die parts to form the openings for mounting the base and the slot for the adjustable bottom saucer holder. The second die part includes a die piece of smaller rectangular dimensions near the upper portion of the cavity of the first die part that forms an opening in the base and shapes a downwardly extending upper member forward of the opening and of the same size.

The lower saucer holder is formed by separate die cavities to have at least one boss sized to fit in the slot of the base extending rearwardly to provide stability within the slot. The portion of the die cavity for the boss is substantially the same width as the slot and the cavity for the bottom holder is substantially the same with of the base.

From the above description, it can be understood that the hanger of this invention has several advantages, such as for example: (1) it is adjustable for different sizes of flowerpots and saucers; (2) it is convenient to mount both the flowerpot and the saucer; and (3) it is inexpensively formed.

SUMMARY OF THE DRAWINGS

The above noted and other features of the invention will be better understood from the following detailed description when considered with reference to the accompanying drawings, in which:

FIG. **1** is a fragmentary, simplified, perspective view of a hanger in accordance with the invention positioned to mount a flowerpot or other container to a pole;

FIG. **2** is a partly-exploded, side elevational view of the embodiment of hanger of FIG. **1**;

FIG. **3** is a front elevational view of a base and upper holder portion of the embodiment of FIG. **1**;

FIG. **4** is a plan view of the embodiment of FIG. **3**;

FIG. **5** is a side elevational view of a bottom hanger portion of the embodiment of FIG. **1**;

FIG. **6** is a front elevational view of the bottom hanger portion of FIG. **5**;

FIG. **7** is a plan view of the embodiment of FIG. **6**; and

FIGS. **8–16** are schematic views illustrating the steps employed in using the invention.

DETAILED DESCRIPTION

In FIG. **1**, there is shown a fragmentary perspective simplified view of a combination **10** of mounting system **12** for potted plants support **14** for the mounting system **12**. The support **14** may be any suitable structure such as a fence, separate post, or a part of a porch of a house and may itself be mounted in a support such as the ground **16** in the case of a fence or post.

The mounting system **12** includes a plant hanger **18**, a saucer **20** for the plant hanger **18**, a flowerpot **22** for holding

the plant and the plant itself **24**. The plant hanger **18** is adapted to be mounted by a wood screw or by a belt to any structure such as a fence or post on a porch or the like and to hold a plant flowerpot with a saucer positioned underneath the plant flowerpot.

Flowerpot in this specification means any suitable container for holding plants such as a clay flowerpot or the like and saucer in this specification means any construction fitting under the plant flowerpot such as to hold water or catch water draining from the flowerpot. However, the invention will be described in terms of conventional clay flowerpots and saucers normally used for this purpose. The word plant includes normal flowering plants or any other plant but particularly ornamentals which may be grown within a flowerpot.

In FIG. **2**, there is shown a side elevational view of a hanger **18** having a hanger base **30**, a saucer holder **32** attached to the base **30**, and a plurality of fasteners including top and bottom attachment belts or ties **34** and **36** and top and bottom wood screws **38** and **40**. The fasteners may be used to fasten the plant hanger **18** to a building or fence structure such as by a wood screw or bolt or the like or by tying the hanger to posts or other vertical relatively small diameter structures. The base includes upon it a flowerpot holder and means permitting the saucer holder to be adjusted in position underneath the flowerpot holder.

The base **30** includes a flowerpot holder section **42** and a saucer holder section **44** with the saucer holder section **44** being integrally formed with the flowerpot holder section **42** and being located immediately below the flowerpot holding section **42** to accommodate the saucer holder **32**.

The flowerpot holder section **42** has a flowerpot holder **31** formed upon it including a downwardly extending tongue **50**, a top portion **52**, a bottom portion **54** and a top and bottom separating section **56**. The tongue **50** extends downwardly from the top portion **52** directly over the bottom portion **54** and its distal end is spaced from the lower surface of the top portion **52** and from the upper surface of the bottom portion **54** a sufficient distance to permit the upper edge of the flowerpot **22** (FIG. **1**) to fit between the distal end of the tongue **50** and the top surface of the bottom portion **54** and extend upwardly without hitting the lower surface of the top portion **52**. The distance between the lower surface of the top portion **52** and the top surface of the bottom portion **54** should be sufficient so that the shoulder of the flowerpot **22** (FIG. **1**) rests upon the upper surface of the bottom portion **54** with the flowerpot **22** being held in its normal horizontal position with respect to the ground.

The bottom portion **54** of the clay flowerpot holder **31** includes a top surface **60**, a bottom surface **64** and a joining slant surface **62** joining the top surface **60** and the bottom surface **64**. The bottom portion **54** of the holder **31** extends forwardly in the same direction as the top portion **52** from the hanger base **30** and is: (1) below the distal end of the downwardly extending tongue or projection **50** a distance **68**; and (2) closer to the base than the tongue **50** but separated from the inner surface of the tongue **50** a distance **58** selected to accommodate the upper rim and shoulder of clay flowerpots and hold them horizontally.

In the preferred embodiment, the distance **68** between a first upper horizontal plane at the distal end of the downwardly extending tongue **50** and a second lower horizonatal plane level with the top surface **60** is 0.75 inches but may be a distance of between 0.8 inches or 0.4 inches as long as it is suitable for holding conventional clay flowerpots in position so that their central vertical axis remains substantially vertical and their bottom is substantially horizontal.

The distance **58** in the preferred embodiment between the inner surface of the tongue **50** facing the separating section **56** and the upper end of the top surface **60** where it joins the slanting surface **62** in the preferred embodiment is one eighth of an inch and the inner surface is one inch from the facing surface of the separating section **56**. However, it may be between one sixteenth and one quarter of an inch from the end of the top surface **60** where it begins curving downwardly to the slanting separating surface **62**. The downwardly extending tongue **50** must be spaced at least an eighth of an inch from the bottom surface of the top portion **52** and in the preferred embodiment, is one and one half inches from the nearest wall above it. This distance need only be sufficient to receive the upper edge of the clay flowerpot.

The separating section **56** between the top portion **52** and the bottom portion **54** includes right and left walls (**70**A and **70**B, FIG. **4**), a generally flat section **70**, three apertures **72**, **74** and **76** (FIG. **3**), a perpendicular support cross wall **71**A and a rectangular opening the same size as the downwardly extending tongue **50** and directly above it. The right wall is shown at **70**B and the opening is in the generally flat section **70** between a perpendicularly extending portion of the wall and the end portion **52** which is open and separated only by side walls for ease in fabrication. The opening permits the molding of the flowerpot holder by an insert in the die that forms the downwardly extending tongue **50** at a different level but parallel to the flat wall section **70**.

Within the separating section **56** but below the level of the bottom of the tongue **50** are the three apertures in the flat wall section **70** for: (1) a screw (**72** in FIG. **3**); and (2) two belt or cord apertures (**74** and **76** in FIG. **3**) on opposite sides of the screw **72** adapted to receive the belt **34**. The opening between the sides is sufficient in size to permit a die part to form the tongue **50** when molding. The base **30** includes a vertical flat plane extending parallel to a supporting post or the like and side walls, with the side walls generally having a depth of three-eighths inch to the surface **70** and a total depth of five-eighths inch. They are approximately three sixteenth inch thick. The width of the base is approximately 1.25 inches and its length is approximately eleven inches. The cross wall **71**A is perpendicular to the flat wall **70** and side walls **70**A (FIG. **4**) and **70**B.

The saucer holder section **44** includes an integral extension of the wall **70** and perpendicular dividing walls **71**B–**71**F, a central opening **102** extending longitudinally along the wall **70** and apertures **110**, **112** and **114**. The central opening **102** is a slot that may receive the saucer holder **32** at a selected location. The apertures **110**, **112** and **114** are similar to the apertures **72**, **74** and **76** (FIG. **3**) and cooperate with them to mount the hanger **18**. Near the bottom of a separating section **44** are a central screw receiving aperture **110** to receive the screw or other fastener **40** and side apertures **112** and **114** to receive the belt or other tie member **36**.

The saucer section **32** includes a top **80**, a bottom **82**, a tongue **84** and a saucer spacing section **86**. The saucer spacing section **86** extends the length of the saucer holder **32** from the top **80** to a bottom surface **92** and includes two flat elongated bases **96**A and **96**B one under the other designed to fit within the elongated groove or central opening **102** slidably but having sufficient surfaces to provide stability. Tapped holes extend through the bases to receive fasteners **104**A and **104**B to hold the saucer holder **32** in place against the base and to provide fastening at a fixed location adjusted in accordance with the height of the flowerpot to be held so that the saucer held by the saucer holder **32** is adjacent to the bottom of the flowerpot held by the flowerpot holder **31**.

The downwardly extending tongue **84** extends from the distal end of the top **80** vertically downwardly toward the bottom **82**. The bottom **82** includes a flat top horitzontal surface **90**, a slanting surface **94** and a bottom surface **92** longer than the top surface **90** to provide an angle to the slanting surface **94** sufficient to hold the saucer vertical under the flowerpot. The distal end of the tongue **84** has an inner surface within a plane offset a distance **88** from the horizontal flat surface **90** of the bottom **82** where it begins to curve downwardly to the slanted joining section **94** by an amount sufficient to receive the lip of a saucer **20** (FIG. **1**). The horizontal top surface **90** is offset from the tip of the tongue **80** by a distance **98** also sufficient to receive the slanted lip of a saucer.

In the preferred embodiment, the distance **88** between the inner surface of the downwardly extending tongue **84** and the distal end of the top surface **90** is three sixteenths of an inch but should be between one eighth and one quarter of an inch and the distance **98** is one quarter inch in the preferred embodiment but should be a distance of between one-eighth and three-eighths inch. The angle of the outer end of the surface **94** is 30 degrees from the horizontal slanting inwardly toward the base. On the other hand, the angle of the slant surface **62** for holding the flowerpot is approximately 78 degrees from the horizontal slanting inwardly toward the base. However, the slant surface **94** should be in the range of between 25 and 35 degrees and the slant surface **62** should be in the range of 76 to 80 degrees.

In FIG. **3**, there is shown a front elevational view of the hanger **18** showing the wall **70**, the two apertures **74** and **76** for the upper belt **34** (FIG. **2**), the lift screw aperture **72** to accommodate the upper screw **38** (FIG. **2**) for hanging the hanger, belt apertures **112** and **114** for the lower belt **36** (FIG. **2**) and the lift aperture **110** for the lower screw **40**. The end of the tongue **50** is separated from the top surface **60** of the bottom portion **54** of the clay flowerpot holder **31** by the distance **68** and underneath the tongue **50** (not visible) is the open section in the wall **70**.

The side walls **70**A and **70**B extend the full length of the hanger perpendicular to the wall **70** and are intersected by the sections **71**A–**71**F (FIG. **2**) perpendicular to both side walls to form a solid structure which may be mounted to a post or a portion of a building or the like. As best shown in this view, the slot **102** extends longitudinally for positioning of the saucer holder **32** in any of a plurality of positions movable along the slot. It is four and one-quarter inches long in the preferred embodiment but should be in the range of one inch to ten inches long. It is one-eighth inch wide in the preferred embodiment but should be in the range of one-sixteenth inch to one-half inch.

In FIG. **4**, there is shown a top view of the hanger **18** showing the slant surface **62** extending downwardly beyond the top portion **52** and the tongue **50** which extends downwardly toward it. As shown at **52**, the openings **72**, **74** and **76** pass through the wall **70** to hold the hanger **18** against a structure.

In FIG. **5**, there is shown a side view of the saucer holder **32** showing the flat bases **96**A and **96**B with central corresponding apertures **97**A and **97**B extending through the flat bases **96**A and **96**B and the separating wall **86** of the saucer holder **32**. These members can be moved up and down the groove **102** (FIGS. **2** and **3**) to position the saucer holder **32** and then fastened in place by the screws **104**A and **104**B (FIG. **2**).

In FIG. **6** there is shown a front elevational view of the saucer holder **32** of FIG. **5** showing the spacing **98** between the top surface **90** and the downwardly extending tongue **84** to permit the edge of a saucer to be introduced. The fasteners **96**A and **96**B with the central openings **97**A and **97**B are shown in this view extending through the separating wall **86**.

In FIG. **7**, there is shown a top view of the saucer holder **32** illustrating the positioning of the top **80**, the horizontal surface **90** and the bottom of the slant surface **94**.

In FIGS. **8–16**, there is shown a developed view of a clay flowerpot **22** and a saucer **20** being mounted to the hanger **18**. As shown in FIGS. **8** and **9**, the distance between the flowerpot **22** and saucer **20** is established by inserting the flowerpot **22** within the holder section **42** of the hanger **18** with the rim of the flowerpot **22** on the inner surface of the downwardly extending tongue **50** and its shoulder resting on the bottom portion **54** of the hanger **18** so that the slant surface **62** (FIG. **2**) rests along the slant of the flowerpot **22**.

The saucer holder **32** is mounted in place by removing the screws **104**A and **104**B (FIG. **2**), mounting the holder in the slot **102** (FIG. **3**) with the flat members **96**A and **96**B within the slot for alignment. The screws are then loosely inserted and the saucer moved as shown in FIG. **8** against the bottom of the flowerpot. The proper location of the saucer holder is marked at a level with a pencil and lowered as shown in FIG. **9** and then the two removed. After that is done, the holder for the saucer is moved back in place and the screws tightened.

To put the saucer **20** in place, the saucer is first inserted into the saucer holder **32** before the flowerpot **22** is inserted into the upper holder **31** by inserting the edge as shown in FIG. **10** and then moving it downwardly so the slanted edge of the saucer fits against the sloped edge **94** of the saucer holder **32** with the circumferential edge resting against the tongue **84** so that the saucer is horizontal.

After the saucer is inserted as shown in FIG. **11**, the flowerpot **22** is inserted within the flowerpot holder **31** as shown in FIG. **12** and moved downwardly in an arc as shown in FIGS. **13–15** with the bottom of the shoulder of the flowerpot **22** resting on the top surface **60**, the conical slant edge of the flowerpot resting against the slanting connecting surface **62** and the inner surface of the upper rim of the flowerpot resting against the inner surface of the tongue **50**. Then as shown in FIG. **16**, the flowerpot, if it is not already filled, may be filled and support a growing plant.

From the above description, it can be understood that the hanger of this invention has several advantages, such as for example: (1) it may conveniently support a saucer in place; (2) it can support a plurality of different size clay flowerpots securely; (3) it is easily used; and (4) it may be economically molded.

Although a preferred embodiment of the invention has been described with some particularity, many modifications and variations in the invention are possible in the light of the above teachings. It is therefore to be understood that, within the scope of the appended claims, the invention may be practiced other than as specifically described.

What is claimed is:

1. A method of hanging a clay flowerpot to a structure comprising the steps of:

mounting a base to a surface;

mounting a flowerpot to a flowerpot holder in an upright position;

mounting a saucer to a saucer holder underneath the flowerpot and positioning the saucer with respect to the flowerpot, after which the saucer holder is fastened in place.

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